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Complete Sentences

PROJECT 2036 - (CONTINUATION SHEET)

2.3.7. Convenience in Erection, Operation, and Maintenance - The device shall be extremely simple to install, and components shall be readily accessible for maintenance.

2.4. Associated Equipment - This unit shall operate in conjunction [redacted] and in conjunction with the AS-1 equipment being developed under Project 2045.

STAT

3. STATUS

The project has been nearly completed during the current period. A contract, [redacted] has been let to [redacted] for the manufacture of fifty units. Prototypes are to be delivered during the next report period.

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4. PLAN FOR THE NEXT PERIOD

This document is [illegible]
[illegible]

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PROJECT 2028 - Miniature Internal Combustion Engine/Generator, Contract RD-13

1. PURPOSE.

This project ~~was~~ shall be initiated in order to provide a miniature gasoline engine driven generator meeting the operational and physical characteristics stated below.

2. OPERATIONAL CHARACTERISTICS.

2.1. General Description: The engine/generator unit shall be a compact, lightweight, self-contained, primary source of power for the operation of agent transmitting and receiving equipment, requiring only the supply of fuel and lubricant, and a minimum of field maintenance. ~~The engine/generator XXXXX unit shall be capable of supplying primary power to any combination~~ [redacted] ~~within the voltage, frequency, and load ratings of the unit.~~ STAT

2.2. Explanation of Necessity: The largest and heaviest portion of any type of agent equipment has always been the primary source of power. This project is another step in the never-ending search for more efficient agent equipment in a smaller space and lighter weight. There are no miniature gasoline-generators in existence which meet these requirements.

2.3. General Characteristics:

2.3.1. Physical: The complete engine/generator unit less muffler, fuel, accessories, and spare parts shall not exceed 12.0 pounds. The engine/generator unit ~~will~~ shall not exceed 300 cubic inches volume, exclusive of major projections which ~~will~~ consist of the breaker point housing 2-13/16 inches in diameter and projecting 7/8 inches beyond the front panel, and the rope cranking pulley 2-1/2 inches in diameter and projecting 1/2 inch beyond the rear of the case. XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX Approximate dimensions of the above 300 cubic inch volume are: 5.4 inches long x 7.69 inches wide x 7.08 inches high. A muffler will be provided external to the above dimensions giving at least 60% noise quieting below open-exhaust conditions.

see note

2.3.2. Constructional Features: The alternator housing, the fuel tank, and one section of the external case ~~are~~ shall be an integral die casting. The cylinder cooling fins and crankcase ~~are~~ shall be an integral die casting. The basic engine shall utilize the efficient Puch principle in which two parallel cylinders operate against a common combustion chamber.

2.3.3. Electrical Features: The generator shall consist of a permanent magnet rotor and a XXXXX stator wound on punched sheet steel laminations. No brushes or slip rings ~~are~~ shall be required. The ignition system ~~is unique~~, shall use ~~using~~ a part of the generated XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX voltage instead of a magneto, and provides for ~~exceptionally~~ easy starting. The unit ~~will~~ shall be shielded to permit the use of radio receiving equipment without excessive RF noise interference.

2.3.4. Utilization of Existing Equipment: ~~With the exception of the spark plug and the voltmeter, practically all component parts are especially designed for this unit.~~ Standard component parts shall be used wherever possible.

2.3.5. Controls: External controls on the engine/generator unit ~~will~~ shall consist of a choke and a throttle.

2.3.6. Climatization: The unit shall start and operate with reliability between 0 and 110 degrees F and 0 to 10,000 feet altitude. The unit shall be splash proof and fungus proof.

2.3.7. Convenience in Erection, Operation, and Maintenance: The engine/generator unit shall require no installation as such. Placing the unit in the selected location, filling with fuel and lubricant, starting and adjusting for running conditions, shall constitute the preparations required. Field maintenance will be held to a minimum. Spark plug cleaning and adjusting, carbon cleanout, and breaker point adjustment, periodically done, will approximate the extent of field maintenance.

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~~2.4 Associated Equipment~~

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2.4. Associated Equipment: The engine/generator unit shall be capable of supplying primary power [redacted] within the voltage, frequency, and load ratings of the unit. STAT

3. STATUS

A preliminary engineering model has been built, run and tested to near destruction, in order to evaluate the basic design, during past periods. A redesign, based on these findings, is now substantially complete. Tooling for the first manufacturing prototype of the redesign is now approximately 85% complete. Some parts are already completed for final assembly.

4. PLAN FOR THE NEXT PERIOD

Two manufacturing prototypes are scheduled to be completed during the next period. One will be delivered to the agency for tests and approval, while the other will be accepted by the government at the contractor's plant, where it will be tested to destruction. Sixty days after approval of the unit delivered to the agency, five more X models are scheduledX to be delivered for use in field tests and evaluation.

Include that para as part of 3. Status (para 2.)

Substitute after "shall not exceed 12.0 LBS" ~~The volume~~ ~~cubic feet~~. The volume of the unit exclusive of the muffler shall not exceed 300 cu. inches.

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